

CALIFORNIA-GERMANY

BILATERAL ENERGY CONFERENCE

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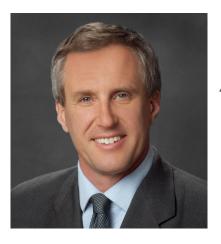
November 5, 2019 San Diego, California



Andreas Feicht State Secretary, German Federal Ministry for Economic Affairs and Energy (BMWi)

"Germany appreciates the deep energy dialogue with California. As global leaders, it is our duty to pave the way towards the

energy system of the future, which will be based on renewable energy and energy efficiency. Targeted investments in clean energy innovations as well as the right regulatory framework and market design will be necessary to establish the energy systems of tomorrow. By working together, we can ensure a future, where energy is not only reliable, flexible, and affordable, but also clean and sustainable."



David Hochschild Chair, California Energy Commission

"California and Germany are global economic leaders and blazing the trail to a clean energy future. As leaders on the global stage, what we do has an impact around

the world. As California progresses toward a 100% clean energy future our partnership with Germany remains essential. Renewable energy has moved from alternative to mainstream. The clean energy future is a future we build together. As we work to decarbonize our economy across all sectors, we must move from ambition to action."

AGENDA

12:00 p.m. **Check-In**

Ballroom 11AB

12:30 p.m. **Opening Remarks**

Master of Ceremony

Drew Bohan, Executive Director, California Energy Commission

12:35 p.m. California Keynotes

Ambassador Eleni Kounalakis, California Lieutenant Governor

Honorable Toni G. Atkins,

Senate President pro Tempore,

California State Senate

1:00 p.m. Welcoming Remarks

Kevin L. Faulconer, Mayor,

City of San Diego

1:15 p.m. **Germany Keynote**

Thorsten Herdan, Director-General for Energy Policy, German Federal Ministry

for Economic Affairs and Energy

1:30 p.m. **Panel 1**

Striving toward a 100%

decarbonised, reliable and affordable energy supply: Drivers and challenges

of the Energy Transition

Investing in low-/zero-carbon,

secure, reliable, and affordable energy

technologies is key to achieving clean energy goals. Climate change, rapid technology developments, cost reductions, disruptive business models, air quality concerns, increasing public participation, and the drive to universal access to energy are deeply modifying the energy systems in our states and globally. Panelists will share their unique perspectives on what success looks like and how we can work together to achieve our clean energy goals.

Moderator:

Jason Anderson, President and CEO, Cleantech San Diego

Panelists:

Dr. Dirk Biermann, Chief Markets and System Operations Officer, 50Hertz Angelina Galiteva, Founder and Board President at Renewables 100 Policy Institute, and Vice Chair of the California Independent System Operator Cody Hooven, Director and Chief Sustainability Officer, City of San Diego Dr. Mario Ragwitz, Deputy of the Institute, Fraunhofer Institute for Systems and Innovation Research Caroline Winn, Chief Operating Officer, San Diego Gas & Electric

3:00 p.m. **Break**

Coffee and Refreshments

3:45 p.m. **Panel 2**

Energy System Flexibility: The Role of Emerging Technologies, Policies and Practices

Germany recently experienced renewable generation higher than the total power system load, with most those resources coming from wind and solar. California and others around the world will follow suit. Flexibility in time and location is the new key resource, in the power system and in view of decarbonizing transportation and heating. The session will discuss the role of emerging technologies, policies, and practices in achieving clean energy mandates and goals.

Moderator:

Cliff Rechtschaffen, Commissioner, California Public Utilities Commission

Panelists:

Jochen Hauff, Director Corporate
Strategy, BayWa r.e. Renewable Energy
Gregor Hintler, Head of Product USA,
The Mobility House
Robert Piconi, Cofounder and Chief
Executive Officer, Energy Vault
Dr. Niklas Schirmer, Head of New
Business at Elli, Volkswagen Group
Charging GmbH

Thomas Speidel, Chief Executive Officer, President, German Energy

Storage Association

5:15 p.m. Closing Conference

Drew Bohan, Executive Director, California Energy Commission

Energy Storage North America Welcome Remarks & Joint ESNA-CGBEC Keynotes Ballroom 6A

5:30 p.m. **Welcoming Remarks**

Janice Lin, Founder and Co-Chair, Energy Storage North America; CEO, Strategen

6:00 p.m. **Keynotes**

A Future Within Reach -

Accelerating the Transition Through

Global Collaboration

David Hochschild, Chair, California

Energy Commission

A Future Within Reach: Insight Into

Germany's Energy Transition

Dr. Falk Bömeke, Director on Bilateral Energy Cooperation, German Federal Ministry for Economic Affairs and Energy

7:00 p.m. **ESNA-CGBEC Joint Opening**

Reception (West Terrace)

SPEAKERS



Jason Anderson
President and Chief Executive
Officer, Cleantech San Diego
Anderson manages the overall
organization and leads several
initiatives critical to the mission of the

organization, including Smart Cities San Diego, advocacy efforts, and economic development programs. Anderson is also Executive Director of the Cleantech Education Foundation, designed to develop education and workforce development programs aligned with the mission of Cleantech San Diego. Before joining Cleantech San Diego, Anderson was vice president of business development for the San Diego Regional Economic Development Corporation (EDC). Before joining EDC, Jason lived in Austin, Texas, where he worked in the State Capitol as legislative director for Texas State Senator Frank Madla.



Senator Toni G. Atkins
Senate President pro Tempore,
State of California

Atkins represents the 39th District and sits on the prestigious Rules Committee, in addition to the

committees on Transportation and Housing; Health, Labor, and Industrial Relations; and Natural Resources and Water. Among the bills Atkins got passed and signed was Senate Bill 2, which created a permanent source of funding for affordable housing, a signature piece of legislation she had worked on for seven years. After just one year in the Senate, Atkins was elected and sworn in as Senate President pro Tempore, becoming the first woman and the first openly LGBTQ person to lead California Legislature's upper house. Throughout her career, Atkins has been a champion for affordable housing, the natural environment, health care, veterans, women, and the LGBTQ community. She lives in the South Park community of San Diego with her spouse, Jennifer, and their dog, Joey.



Dr. Dirk BiermannChief Markets and Systems
Operations Officer, 50Hertz
Transmission GmbH

Biermann leads 50Hertz's Energy Management Department with

responsibility for the energy market design, congestion management, and ancillary services and renewables program. Before joining 50Hertz, Biermann led grid strategy for Vattenfall Europe AG. Biermann is a member of the advisory boards of EEX in Leipzig and TSCNET in Munich. He is also a board member at Coreso and EGI in Brussels.



Drew BohanExecutive Director, California
Energy Commission

Bohan has served Californians for more than 20 years, including his current role overseeing the California

Energy Commission's (CEC) work of leading California to a 100 percent clean energy future. His public service includes leadership roles with the CEC, California Environmental Protection Agency, Ocean Protection Council, and California Department of Conservation. Bohan served as the executive director of Santa Barbara Channelkeeper, chief counsel to the House of Delegates in the Republic of Palau, and a litigation attorney at Heller Ehrman in San Francisco.



Dr. Falk Bömeke
Director on Bilateral Energy
Cooperation, German Federal Ministry
for Economic Affairs and Energy

Bömeke's responsibilities cover the bilateral energy cooperation with North

America, Africa, Middle East, Eastern Europe and Australia as well as the Berlin Energy Transition Dialogue, a large annual international energy conference. Bömeke also has led the Economic and Energy Division at the German Embassy in Pretoria. He has also worked as an Economic Counselor at the German Embassy in Washington and in the European Department of the Federal Foreign Office in Berlin as well as in the Parliamentary and Cabinet Division, the Automobile and Electric Vehicle Division and the European Law Division at the Federal Ministry for Economic Affairs.



Mayor Kevin L. Faulconer Mayor, City of San Diego

Faulconer became the 36th mayor of San Diego on March 3, 2014, on a campaign message of bringing San Diego together and restoring

integrity to City Hall. Faulconer leads the city under his platform of "One San Diego," an inclusive city government that creates opportunities and improves the lives of all residents in all neighborhoods. His administration focuses on reforming government into a responsive and results-driven organization that efficiently and effectively serves the public. Faulconer has bolstered public safety, expanded services like parks and libraries across the city, and tripled the miles of roads repaired annually to meet his aggressive goal of fixing 1,000 miles of streets over five years. He has prioritized new funding and programs to reduce homelessness, make housing more affordable, grow San Diego's innovative and binational economy, and create good-paying jobs for San Diegans.



Angelina Galiteva
Founder and Board President,
Renewables 100 Policy Institute, and
Vice Chair, California Independent
System Operator

Galiteva is the Founder and Board

Chair of Renewables 100 Policy Institute, an organization dedicated to accelerating global transition to 100% renewable energy. Since 2011, Galiteva was appointed and serves as the Vice Chair of the California Independent Systems Operator Board (CAISO), one of the largest transmission operators in the World. Galiteva also serves as Chair of the World Council for Renewable Energy and is a Founding Board Member of the Global Clean Energy Desalination Alliance. Galiteva is an expert in strategic issues related to renewable energy, new technology development and implementation, optimizing power system resiliency and efficiency, as well as overall sustainability and environmental policy programs for public and private entities.



Jochen Hauff
Director of Corporate Strategy,
BayWa r.e Renewable Energy

Hauff is a member of the Global Executive Team, and his work focuses on a 100 percent renewable energy

(solar, wind, and bioenergy) future. The group, headquartered in Munich. has offices in more than 20 countries. Hauff has led the firm's photovoltaic wholesale activities. Before joining BayWa r.e., Hauff was director of renewable energy and sustainability at A.T. Kearney. He advised conventional and renewable energy companies, associations, and Fortune 500 corporations around the world. Hauff serves as vice president of SolarPowerEurope, the European PV Industry Association, and represents BayWa r.e. in several energy sector associations.



Thorsten Herdan
Director-General Energy, German
Federal Ministry for Economic Affairs
and Energy (BMWi)

Herdan was elected Chairman of the Supervisory Board of the German Fund

for Nuclear Power Plant Waste Disposal (KENFO) in June 2017. Herdan has held the positions of managing director of the professional association for producers of power systems and the professional association for producers

of engines and systems (VDMA). He was the managing director of the Research Association for Combustion Engines (FVV), and managing director of the German Engineering Federations' Energy Forum, which is in charge of developing the Federation's energy policy. Herdan served on the Board of the European Association of Internal Combustion Engine Manufacturers (EUROMOT), on the Board and the Supervisory Board of the European Wind Energy Association (EWEA), and as Vice-President of the Offshore Wind Energy. Herdan has also served as Chairman of the Supervisory Board of the Fund for Nuclear Power Plant Waste Disposal Foundation.



Gregor Hintler
Head of Product USA, The
Mobility House

Hintler leads The Mobility House's expansion in the U.S. market. The focus of Hintler's professional career has been

on the intersection of the mobility and energy industries. Prior to The Mobility House, Hintler built digital products at Lab1886 - Mercedes Benz's Incubator in Silicon Valley and developed growth strategies and financing mechanism for new energy technologies at NRG Energy and Meister Consultants Group.



David Hochschild
Chair, California Energy Commission
Hochschild was appointed chair of the
CEC in February 2019. He has served
as a CEC commissioner since 2013.
Hochschild's career has spanned public

service, environmental advocacy, and the private sector. He first got involved in the solar energy field as a special assistant to San Francisco Mayor Willie Brown, where he launched a citywide \$100 million initiative to put solar panels on public buildings. He also cofounded the Vote Solar Initiative, a 60,000-member advocacy organization promoting solar policies. Hochschild was executive director of a national consortium of leading solar manufacturers and worked for five years at Solaria. HochschilWd also was a commissioner at the San Francisco Public Utilities Commission.



Cody Hooven
Director and Chief Sustainability
Officer, City of San Diego

Hooven is the Director of the Sustainability Department and the first Chief Sustainability Officer for the city of

San Diego, the 8th largest U.S. city. She leads sustainability planning and policy, with emphasis on economic development and social equity. Her team is exploring how technology, renewable energy, mobility, green buildings,

and climate resilience are included in San Diego's approach to sustainable, smart communities. Hooven's purview also includes engaging businesses in win-win solutions for sustainability and leading the city's move towards 100% renewable energy. Hooven works on various collaborative efforts in San Diego and statewide, including as a founding member and current Chair of the San Diego Regional Climate Collaborative and board member of Cleantech San Diego.



Ambassador Eleni Kounalakis Lieutenant Governor, State of California

Governor Gavin Newsom swore in Kounalakis as the 50th Lieutenant Governor of California on January

7, 2019. She is the first woman elected Lt. Governor of California. From 2010 to 2013, Kounalakis served as President Barack Obama's Ambassador to the Republic of Hungary. Kounalakis was the first Greek-American woman – and at age 43, one of America's youngest – to serve as U.S. Ambassador. Her highly acclaimed memoir, Madam Ambassador, Three Years of Diplomacy, Dinner Parties and Democracy in Budapest (The New Press, 2015), chronicles the onset of Hungary's democratic backsliding. Governor Edmund G. Brown Jr. appointed Kounalakis to chair the California Advisory Council for International Trade and Investment in 2014. Kounalakis was a Virtual Fellow

at the U.S. Department of State, Bureau of Intelligence and Research (INR) between 2014 and 2017, specializing in international trade and immigration. Prior to her public service, Kounalakis was president of one of California's most respected housing development firms, AKT Development, where she worked for 18 years.



Janice Lin
Founder and Chief Executive
Officer, Strategen

Lin is CEO of Strategen, a mission driven professional services firm focused on market development for

decarbonized energy systems. Since entering the clean energy sector in 1999, Lin has helped to transform the power sector with energy storage. She co-founded the California Energy Storage Alliance and served as its Executive Director for 10 years, helping to build California into one of the world's most important and robust energy storage markets. Lin is also the co-founder and chair of Energy Storage North America, the largest dedicated grid-connected energy storage event in North America. Lin received the 2019 Cleanie Award for "Entrepreneur of the Year," and recently launched the Green Hydrogen Council, a new non-profit dedicated to advancing the use of green hydrogen to accelerate the transition to a carbon-free energy supply and multi-sector decarbonization.



Robert Piconi
Cofounder and Chief Executive
Officer, Energy Vault

Piconi leads Energy Vault and is a member of its board of directors. Energy Vault is an IdeaLab

(www.idealab.com) portfolio company based in Lugano, Switzerland, which focuses on the development of innovative, grid-scale energy storage solutions. Piconi's experience includes executive leadership roles in Fortune 100 public companies across various industries, including Diversified Energy (Amoco/British Petroleum), Telecommunications (Bell Labs Lucent Technologies/Alcatel), and Security/Network Management Software (Danaher Corporation). Piconi also founded and developed several innovative health care service and solution companies within the European market, which were later acquired by private equity funds or large industry conglomerates or both.



Dr. Mario RagwitzDeputy Officer, Fraunhofer Institute for Systems and Innovation Research

Ragwitz is a physicist with experience modeling complex dynamic systems, techno-economic analysis of energy systems in energy and climate policy,

with a focus on renewable energies. His career includes honorary professor at the Albert-Ludwigs University Freiburg, Faculty of Environment and Natural Resources; deputy director of Competence Center Energy Policy and Energy Markets; and senior scientist and project manager at the Fraunhofer ISI. Ragwitz was a visiting researcher at the University of Texas at Austin and the Lawrence Berkeley National Laboratory.



Cliff Rechtschaffen
Commissioner, California Public
Utilities Commission

Rechtschaffen was appointed to the California Public Utilities Commission (CPUC) in 2017. His key areas of

interest include decarbonization, safety, environmental justice, and enforcement. Rechtschaffen leads the CPUC on several risk assessments, emergency management and safety proceedings, the transportation electrification proceedings, Renewables Portfolio Standard, the affordability proceeding, and the biomethane and renewable gas

proceedings. Rechtschaffen is a member of the Senate Bill 350 Disadvantaged Communities Advisory Group and the Western Energy Imbalance Market Body of State Regulators. He also sits on the advisory board of the California Stationary Fuel Cell Collaborative and the Financial Research Institute.



Dr. Niklas Schirmer
Head of New Business at Elli,
Volkswagen Group Charging GmbH
Schirmer is responsible for future
business development and regulatory

affairs at the interface of the energy

and automotive value chain. Prior to joining Volkswagen, he was oversaw the Energy and Automotive Division at Berlin-based start-up Ubitricity, a smart metering and charging infrastructure company. Schirmer started his career at Apricum, a cleantech advisory in the renewables industry.



Thomas Speidel
Chief Executive Officer, President,
German Energy Storage Association
Speidel leads ADS-TEC, which
develops and produces highly
efficient battery storage and fast-

charging systems in the energy sector.

Starting capacities are from 19 kilowatt-hours for homes and smaller commercial buildings to scalable industrial storage systems. The newly developed fast-charging systems

for electric mobility are proving groundbreaking. They are unsurpassed worldwide in compactness in terms of capacity and performance. ADS-TEC's infrastructure solutions include multimegawatt ranges for energy providers and grid operators, and professional solutions for a broad-based clientele.



Caroline Winn
Chief Operating Officer,
San Diego Gas & Electric
Winn is chief operating officer for San
Diego Gas & Electric (SDG&E), one of
Sempra Energy's regulated California

utilities. Sempra Energy is a San Diego-based energy services holding company whose subsidiaries provide electricity, natural gas and value-added products and services. SDG&E is a regulated public utility that provides service to 3.6 million consumers through 1.4 million electric meters and more than 873,000 natural gas meters in San Diego and southern Orange counties. Winn became chief operating officer of SDG&E in January 2017 and joined the company in 1986 as an associate engineer. Winn serves on the Management Council and Board of Directors of the San Diego Regional Chamber of Commerce. Winn also serves on the Board of Directors of the Western Energy Institute and the board of advisors for the UC Davis Energy Efficiency Center.



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